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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,613	09/27/2001	Johannes Ganzert	4100-0133P	9365

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EXAMINER
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FERRIS III, FRED O

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/963,613	<b>Applicant(s)</b> GANZERT, JOHANNES	
	<b>Examiner</b> Fred Ferris	<b>Art Unit</b> 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
- 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. *Claims 1-9 have been presented for examination based on applicant's disclosure filed on 27 September 2001. Claims 1-9 have been rejected by the examiner.*

### **Priority**

2. *Applicants claim for foreign priority based on German application 100 50 546.5 filed 12 October 2000 is acknowledged. Receipt is also acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.*

### **Specification**

3. *The disclosure is objected to because of the following informalities: Specification pages 1-6 include paragraph numbers [0001] to [0013] which are improper. Appropriate correction is required.*

### **Claim Objections**

4. *Claim 4 is objected to because of the following informalities: Claim 4 recites the phrase, "wherein the second bus (19) in an intranet over which a plurality of..". This phrase does not make sense. The examiner believes that applicants actually intended the word "in" to be the word "is". (i.e. "wherein the second bus (19) is an intranet over which a plurality of..") Appropriate correction is required.*

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**5. Claims 1, 3, 4, 7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,736,374 issued to Kump et al.**

Regarding independent claim 1: Kump teaches a method and system capable of distributing program code (software/firmware) among multiple measuring instruments (test instruments, CL2, 5-21, CL3-L61) inclusive of a central computer (main processor, CL2-L41, Fig. 1) with storage memory (medium) coupled to multiple control computers (microprocessors, CL2-L45-47, Fig. 1), and where the instruments are coupled to control computers (microprocessors) via a first bus (CL2-L47, CL4-L58, Fig. 1) and each microprocessor (control computer) is subsequently connected via a second bus (CL4-L66, Fig. 1) to the central computer (main processor) and also coupled via an Ethernet (i.e. inter-regional) network (CL2-L45). (Note: the examiner has equated the test instruments of Kump with the measuring instruments of the present invention) Kump further teaches that the program code is transmitted (downloaded, CL3-L46) to the main (central) computer from the storage medium (mass memory) via the Ethernet (inter-regional) network (CL2-L45). Supplying the program code to the central computer by placing the storage medium in a reading device would be inherently necessary in

*order to initially "load" the program code for transmission to the central computer.*

*Kump also discloses transmitting (downloading) program code (software, CL3-L46) via the second bus (CL5-L1-14) and transmitting (downloading) program code (CL6-L41-44) from the microprocessors (control computer) via the first bus (CL4-L60-65) to the measuring instruments (CL3-L34-45). (Also see: Abstract, Fig. 2, CL6-L9-17)*

*Per dependent claims 3 and 4: Kump discloses an inter-processor bus capable of passing test (measurement) data that is implemented using Ethernet (CL2-L46, i.e. a serial bus) as noted above. The Ethernet configuration coupling processors hence forms an Intranet between the microprocessors. (See: Fig. 1, CL2-L46-47)*

*Per dependent claim 7: Kump discloses different types of measuring (test) instruments (CL2-L1-21). Providing a target address for the instrument in the program code would be inherently necessary in order to determine which instrument is receiving the program code download (transfer). The examiner also notes that the IEEE 488 bus indicated by Kump (CL2-L63) inherently provides instrument addresses.*

*Per dependent claim 9: Determining the type of measuring instrument by transmitting information to the central computer via the second bus would again be inherently necessary in order to identify which instruments are coupled to a particular microprocessor (control computer) using the reasoning cited above.*

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**6. Claims 2, 5, 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,736,374 issued to Kump et al in view of U.S. Patent 6,021,276 issued to Demke et al.**

Regarding dependent claims 2, 5, 6, and 8: As previously cited above, Kump teaches the elements of independent claim 1 relating to a method and system capable of distributing program code (software/firmware) among multiple measuring instruments (test instruments, CL2, 5-21, CL3-L61) inclusive of a central computer (main processor, CL2-L41, Fig. 1) with storage memory (medium) coupled to multiple control computers (microprocessors, CL2-L45-47, Fig. 1), and where the instruments are coupled to control computers (microprocessors) via a first bus (CL2-L47, CL4-L58, Fig. 1) and each microprocessor (control computer) is subsequently connected via a second bus (CL4-L66, Fig. 1) to the central computer (main processor) and also coupled via an Ethernet (i.e. inter-regional) network (CL2-L45). (Note: the examiner has equated the test instruments of Kump with the measuring instruments of the present invention)

*Kump further teaches that the program code is transmitted (downloaded, CL3-L46) to the main (central) computer from the storage medium (mass memory) via the Ethernet (inter-regional) network (CL2-L45). Supplying the program code to the central computer by placing the storage medium in a reading device would be inherently necessary in order to initially "load" the program code for transmission to the central computer.*

*Kump also discloses transmitting (downloading) program code (software, CL3-L46) via the second bus (CL5-L1-14) and transmitting (downloading) program code (CL6-L41-44) from the microprocessors (control computer) via the first bus (CL4-L60-65) to the measuring instruments (CL3-L34-45). (Also see: Abstract, Fig. 2, CL6-L9-17)*

*Kump does not explicitly teach updating firmware (claim 2), transmitting program code via the Internet (claim 5), a CD-ROM as the storage medium (claim 6), or downloading targeted program code by way of a list of types (claim 8).*

*Demke teaches techniques for downloading program code (micro-code) and firmware inclusive of updating firmware (CL4-L61) as recited in claim 2, transmitting program code via the Internet (CL6-L39-41, CL3-L19) as recited in claim 5, using a CD-ROM as the storage medium (CL3-L19) as recited in claim 6, and downloading targeted program code (CL4-L58) by way of a list of types (i.e. parameters in a file, CL6-L35) as recited in claim 8. Identifying the instrument type is also necessitated by the IEEE 488 bus disclosed by Kump as previously noted above.*

*It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of Kump relating to distributing program code among multiple measuring instruments, with the teachings of Demke*

*relating to updating firmware, transmitting program code via the Internet, and using a CD-ROM, to realize the claimed invention. An obvious motivation exists since this area of technology is highly competitive with many instrument bus firmware/software updating techniques available in the market place and large amounts of money being spent in product development and improvement (See Kump/Demke, Background, Kump mentions IEEE 488, VME, and Multibus (CL2-L47-64), to name a few). Accordingly, a skilled artisan would have made an effort to become aware of what capabilities had already been developed in the market place, and having access to the teachings of Kump and Demke, would have knowingly modified the teachings of Kump with the teachings of Demke in order to reduce development time and cost.*

### **Conclusion**

7. *The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Careful consideration should be given prior to applicant's response to this Office Action.*

*U.S. Patent 6,311,149 issued to Ryan et al teaches a re-configurable test instrumentation system.*

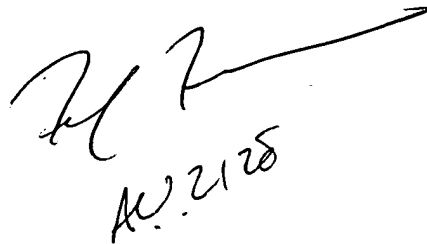
*"Will Measurement Instruments Turn into Agents?", Dobrowiecki et al, IEEE Instrumentation and Measurement Conference, June 1996 teaches test and measurement systems and related firmware updates.*



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*Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 571-272-3778 and whose normal working hours are 8:30am to 5:00pm Monday to Friday. Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 571-272-3700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jean Homere can be reached at 571-272-3780. The Official Fax Number is: (703) 872-9306*

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February 18, 2005



Handwritten signature of Fred Ferris, dated 2/18/05.